

Work Order ID 77612

77612

Page 1

December-13-11 4:25:32 PM

Item ID: D2622-120C Accept ***N9000040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Step Extrusion
 Start Date: 13/12/2011 Start Qty: ¹²⁰110.00 ***110*** Cust Item ID:
 Required Date: 20/01/2012 Req'd Qty: 110.00 ***110*** Customer:
 Reference:

Approvals: Process Plan: M.L.J Date: 11/12/13 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2622	Rev C1								

100 0.00

100 PURCHASING
 Purchasing
 Purchasing
 Memo
 Issue P/O: 15702 a) Extrude as per Dwg D2622 Rev. Cb)
 Material: 6061-T6 (QQ-A-200/8)c) Minimum yield tensile strength = 35
 ksid) Minimum ultimate tensile strength = 38 ksi e) Minimum elongation =
 8%f) Order at 120" longg) Bon L Canada Inc.

CX 11/12/20 120

110 0.00

110 Receive & Inspect for Damage & Mat'l Certs
 Packaging
 Packaging
 Memo
 Ensure material certification is attached

44/1/12 (130)

120 0.00

120 QC6- Inspect dimensions to drawing
 QC
 Quality Control
 Memo
 Check Pull test per Dwg D2622 for compliance page attached Check hardness
 with Webster tester

count
1120

Bring Qty + 20 PC to QC for spot inspection

678 12/13/30 20 per

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 77612

77612

Page 2

December-13-11 4:25:32 PM

Item ID: D2622-120C

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Step Extrusion

Start Date: 13/12/2011 Start Qty: 110.00

110

Cust Item ID:

Required Date: 20/01/2012 Req'd Qty: 110.00

110

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: <u>W4</u>	0.00							
130									
Packaging	Memo	0.00		AL		130	φ		
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							12/1/30 J
Quality Control									

12-01-30
130

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

December-13-11 4:25:35 PM

Page 1

Work Order ID: 77612

77612

Parent Item: D2622-120C

D2622-120C

Parent Item Name: Step Extrusion

Start Date: 13/12/2011

Required Date: 20/01/2012

Start Qty: 110.00

Required Qty: 110.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2622-120CP *D2622-120CP* Extrusion		Purchased	No			110	Each	0.0000	1	110			
									**			13/01/12	(130)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

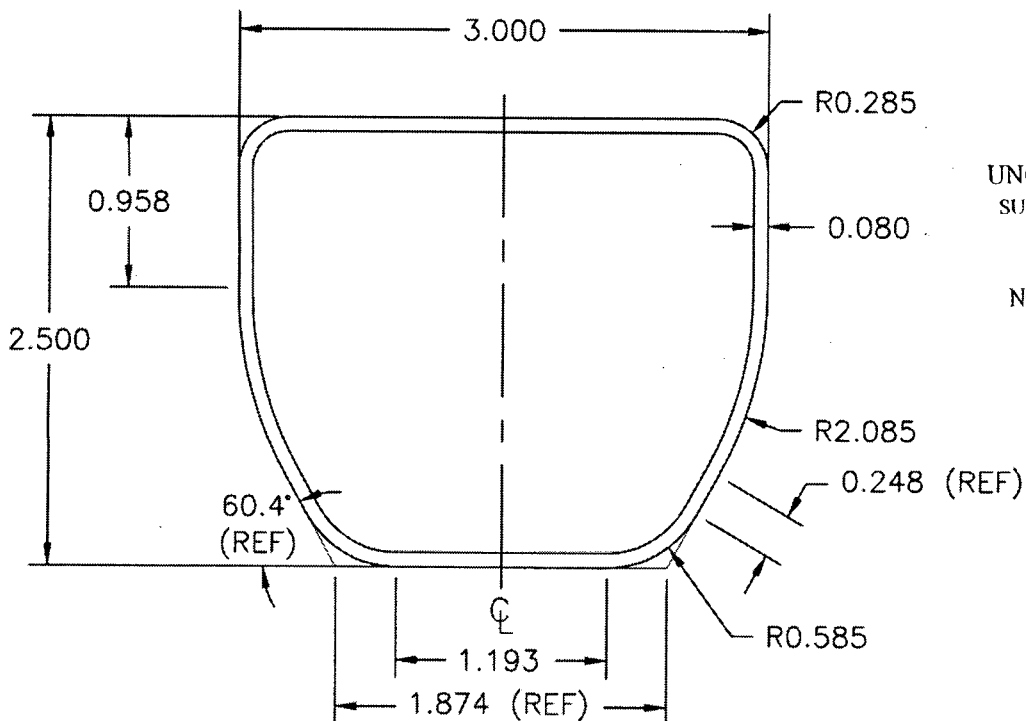
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN KE	DRAWN BY GP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D2622	REV. C SHEET 1 OF 1
DATE 02.09.11		TITLE STEP EXTRUSION	SCALE 1:1
A	96.11.29	NEW ISSUE	
B	97.12.12	CHANGE MATERIAL, ADD TOL. QSI	
C	02.09.11	0.080 WAS 0.085; ADD PART & DIE No.	
CI	GP 02.10.04	ADD 'REV. A' TO DIE NUMBER.	

RELEASED
02.09.11 #



SHOP COPY
RETURNED
ENGINEER
UNCONTROLLED
SUBJECT TO APPROVAL
WITHOUT NOTICE
WORK ORDER
NO. 77612
M.L.J.
11/12/13

D2622-XXX STEP EXTRUSION

- PART NUMBER IS D2622-XXX WHERE 'XXX' IS CUT LENGTH IN INCHES (EG. D2622-120 IS 120" LONG)
- MATERIAL 6061-T6 (QQ-A-200/8)
- MANUFACTURED USING BON-L DIE # 897123 REV. A
- A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE MINIMUM MECHANICAL PROPERTIES STATED BELOW:

MINIMUM TENSILE YIELD STRENGTH = 35 ksi
MINIMUM ULTIMATE TENSILE STRENGTH = 38 ksi
MINIMUM ELONGATION = 8%

- PART IS SYMMETRIC ABOUT CENTERLINE
- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

Copyright © 2002 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO15702

Purchase Order Date 12/20/11

PO Print Date 12/20/11

Page Number 1 of 1

Order From :

VC-BON001

SIGNATURE ALUMINUM
1850 CLEMENTS ROAD
PICKERING, ON L1W 3R8
CA

Contact Name

Vendor Phone

800 563 1079

Vendor Fax

800 565 8339

Vendor Account Nbr

Buyer

Chantal Lavoie

Requisition Nbr

Tax Resale Nbr

10127-2607

Terms

Net 30

Currency

CAD

FOB

Destination-Collect

Ship To :

DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

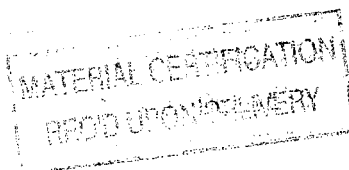
CX 11/12/11
e-mat

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	D2622-120CP	Extrusion	1/16/12 Yes	120.00 Each	Yours ppd	\$28.7670	\$3,452.04

Special Inst: EXTRUDE AS PER DWG D2622 REV. C
B77612
MATERIAL: 6061-T6 QQ-A-200/8
MINIMUM TENSILE STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE
STRENGTH = 38 KSI
MINIMUM ELONGATION = 8%
120" LONG
SIGNATURE ALUMINUM DIE #897123

PO Total:

\$3,452.04



Change Nbr:

1

Change Date: 12/20/11

No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required when applicable

ACCT# 46024

INVOICING AND COMPANY LOCATION

SIGNATURE ALUMINUM CANADA
1850 CLEMENTS ROAD
PICKERING ON L1W 3R8

SHIPPING MANIFEST

MANIFEST DATE / DATE DU BODEREAU
01-15-12

MANIFEST NUMBER / N° DE BODEREAU
004069

SALES ORDER NUMBER / N° DE COM
104014

SHIP TO / EXPÉDIÉ À
DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
CANADA

SOLD TO / VENDUE À
DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
CANADA

PHONE: 613-632-5200

PHONE: 613-632-5200

TERMS / FREIGHT

PP

REFER TO
THESE NUMBERS ON
ALL CORRESPONDANCE

REFEREZ-VOUS A CES
NUMEROUS POUR TOUTE
CORRESPONDANCE

LOCATION	TRAILER NUMBER / REMORQUE Nombre	SALESMAN / VENDEUR	CREDIT REP / REP DU CRÉDIT	SALES REP / REP. DES VENTES
PIC	5302	042		G.ATTENBOROU
	JOB / FICHER		FIELD SALES REP / REP REGIONAL DES VENTES	CUST SERVICE REP / REP. SERVICE CLIENTELE
	CARRIER / TRANSPORTEUR JODEE		G.ATTENBOROU	DLB

ITEM NO. / NUMÉRO	ORIGINAL ORDER QUANTITY / Quantité d'ordre ORIGINAL	UNIT / UNITÉ	PREVIOUS SHIPPED QUANTITY / PRÉCÉDENT Quantité livrée	MFG. PART NUMBER / MFG. PARTIE NUMÉRO	ALLOY & TEMPER / ALLIAGE & TEMPER	FINISH DESCRIPTION / DESCRIPTION DE FINITION	NBR OF PKGS / NBR DE PKGS	GROSS LBS / LIVRES BRUT	NET QUANTITY / QUANTITÉ NETTE	UNIT / UNITÉ	QUANTITY DUE / Quantité en raison
001	1,094	LB		DAA-897123-2	6061 T6		3	1,270	1,230	LB	
	496	KG		D2622-120CP	120.0000 IN			576	558	KG	
	120	PC			Cut(+): 0.1180 Cut(-): 0.0000 Min: 0 % Max: 0 %				130	PC	
						809047 / 128600	1	450	437		46 PC
						809047 / 128601	1	410	397		42 PC
						809047 / 128602	1	410	397		42 PC

13

Transportation/Traffic damages and/or shortage claims are to be noted on the delivery copy of sellers shipping manifests and signed and dated below by customers authorized representatives.
No return materials will be accepted for credit without permission. The articles and/or services covered by this shipping manifest were produced in accordance with the fair labor standards act of 1938 as amended. Order accepted subject to the terms and conditions stated on the reverse side.

CUSTOMER ACKNOWLEDGEMENT OF GOODS DELIVERED AND CONDITION

Page 1

DATE OF DELIVERY

DRIVER

3	1,270	1,230	LB
	576	558	KG
		130	PC
TOTALS			

CERTIFICATE OF COMPLIANCE

SIGNATURE ALUMINUM CANADA

1850 CLEMENTS RD
PICKERING, ON L1W 3R8

Cert Date	Cert No.	Sales Order	Page
01/15/2012	5276128	104014	1
Cust PO	B/L No	Lot	Date
15702	004069	809047	01/15/12

Sold To		Ship To	
46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA		46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA	
Item No	Part No	Item Description	Cust Part
001	DAA-897123-2	10FT MILL 6061 T6	D2622-120CP
Gross Weight	1,270 LBS		
Net Qty	1,230 LBS		
Specification	AMS-QQ-A-200/8 & ASTM B221-08		
		Die Desc	

Mechanical Tests:

Tensile	Yield	% Elongation	Conductivity	HREW
MPA / KSI	MPA / KSI			
275.2 / 39.9	245.5 / 35.6	11.0	0.0	89

Chemical Analysis:

SI	FE	CU	MN	MG	CR	ZN	TI	V
0.64	0.34	0.23	0.06	0.97	0.06	0.07	0.02	

8210117

This will certify that the material described herein has been inspected and tested in accordance with Signature Aluminum Canada's standard sampling and testing procedures or in accordance with the requirements of any specification forming a part of the material description to the extent indicated herein. Data of chemical composition for the material and test results from samples representative of the material are set forth above hereof or in any attachments hereto. This information shows that the material meets the applicable requirements. Inspection and test records are maintained on file. This certificate shall be deemed apart of and subject to the terms and conditions of warranty set forth on the reverse side of our order acknowledgement form. No other warranties are applicable.

S. Mazzotta, Director of Quality Signature Aluminum Canada Inc